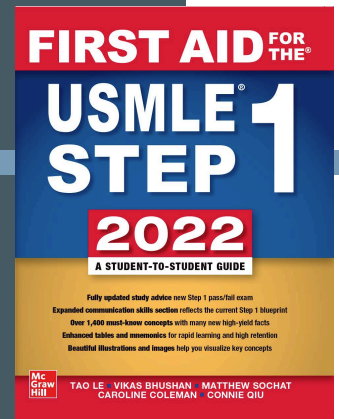


# Special Situations



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**▶ FIRST AID FOR THE INTERNATIONAL MEDICAL GRADUATE**

▶ *IMGs make up approximately 25% of the US physician population.*

▶ *More detailed information can be found in the ECFMG Information Booklet, available at [www.ecfmg.org/pubshome.html](http://www.ecfmg.org/pubshome.html).*

“International medical graduate” (IMG) is the term used to describe any student or graduate of a non-US, non-Canadian, non-Puerto Rican medical school, regardless of whether he or she is a US citizen/resident or not.

**IMG’s Steps to Licensure in the United States**

To be eligible to take the USMLE Steps, you (the applicant) must be officially enrolled in a medical school located outside the United States and Canada that is listed in the World Directory of Medical Schools (WDOMS; [www.wdoms.org](http://www.wdoms.org)) and meet the ECFMG eligibility requirements, both at the time you apply for examination and on your test day. In addition, your “Graduation Year” must be listed as “Current” at the time you apply and on your test day.

If you are an IMG, you must obtain ECFMG certification in order to be eligible to participate in the 2022 Match program to apply for residency programs and become licensed to practice in the United States. Six pathways are available to obtain certification, each of which outline different options and combinations of the accepted clinical, communication, and examination requirements. You must meet eligibility to apply to a pathway and satisfy the specified skill requirements even if you are already a practicing physician and have completed a residency program in your own country. Applicants interested in obtaining certification must meet all requirements for only the pathway to which they choose to apply. A summary of each pathway’s requirements is outlined below; visit [www.ecfmg.org/certification-requirements-2022-match](http://www.ecfmg.org/certification-requirements-2022-match) for details and updates.

Pathway 1: Applicants who currently hold or have recently held a license to practice medicine without supervision in another country.

- License/registration to practice medicine without supervision on or after January 1, 2015. The license does not need to be currently valid. Licenses that require supervised practice (eg, training license) are not valid for this pathway.
- License/registration has not been subject to disciplinary action.

Pathway 2: Applicants who do not meet the criteria for Pathway 1, but who have successfully completed a standardized clinical skills exam as a requirement for licensure in another country.

- Passing score on a secure standardized clinical skill exam in English, taken on or after July 1, 2018. Exam must be from a list of exams that have been deemed acceptable by ECFMG. See website for list of exams that currently meet this requirement: <https://www.ecfmg.org/certification-requirements-2022-match/pathway-2.html>.

Pathway 3: Applicants who do not meet the criteria for Pathways 1 or 2, but who are students or recent graduates of a medical school accredited

by an agency recognized by the World Federation for Medical Education (WFME).

- School must be currently accredited or accredited at the time of matriculation. Graduation must be on or after January 1, 2018.
- Applicant's clinical skills must be evaluated and certified by an authorized school official.

Pathway 4: Applicants who do not meet the criteria for Pathways 1 or 2, but who are students or recent graduates of a medical school accredited by an agency that has received a Determination of Comparability by the National Committee on Foreign Medical Education and Accreditation (NCFMEA).

- School must be currently accredited. Graduation must be on or after January 1, 2018.
- Applicant's clinical skills must be evaluated and certified by an authorized school official.

Pathway 5: Applicants who do not meet the criteria for Pathways 1 or 2, but who are students or recent graduates of a medical school that issues an MD degree jointly with a US medical school accredited by the Liaison Committee on Medical Education (LCME).

- Graduation must be on or after January 1, 2018.
- Applicant's clinical skills must be evaluated and certified by an authorized school official.

Pathway 6: Applicants who do not meet the criteria for Pathways 1–5 and/or have failed Step 2 CS at least one time.

- Applicants must complete six in-person clinical encounters using the ECFMG Mini-CEX and obtain an acceptable score in each evaluated component.
- Physician evaluators must currently hold a full unrestricted license for a minimum of five years and be authorized to perform the Mini-CEX activity. Evaluators may not be related to the applicant, and may not be compensated to perform the evaluation. Each evaluator may only evaluate up to two encounters.

A list of schools that meet the eligibility requirements for pathways 2–5 can be found at <https://www.ecfmg.org/certification-requirements-2022-match/pathway-schools.php>.

Applicants to all pathways are required to attain a minimum score of 350 (Grade B) on each sub-test of the Occupational English Test (OET) Medicine regardless of citizenship or native language. For more information, visit <https://www.occupationalenglishtest.org/l/ecfmg>.

After determining your eligibility to apply to one of the above pathways, complete and submit an application at <https://pathways.ecfmg.org>. Ensure all required documentation to support your application is received by ECFMG, including releasing your OET Medicine scores to ECFMG.

- Once you have the ECFMG certification, take the USMLE Step 3 during your residency, and then obtain a full medical license. Once you have a state-issued license, you are permitted to practice in federal institutions such as Veterans Affairs (VA) hospitals and Indian Health Service facilities in any state. This can open the door to “moonlighting” opportunities and possibilities for an H1B visa application if relevant. For details on individual state rules, write to the licensing board in the state in question or contact the Federation of State Medical Boards (FSMB). If you need to apply for an H1B visa for starting residency, you need to first take and pass the USMLE Step 3 exam, preferably before you Match. However, you will be able to apply for and take the USMLE Step 3 exam only after you graduate from medical school.
- Complete your residency and then take the appropriate specialty board exams if you wish to become board certified (eg, in internal medicine or surgery). If you already have a specialty certification in another country, some specialty boards may grant you six months’ or one year’s credit toward your total residency time.
- Currently, most residency programs are accepting applications through ERAS. For more information, see *First Aid for the Match* or contact:

**ECFMG/ERAS Program**

3624 Market Street

Philadelphia, PA 19104-2685 USA

(215) 386-5900

Email: [eras-support@ecfm.org](mailto:eras-support@ecfm.org)

[www.ecfm.org/eras](http://www.ecfm.org/eras)

- For detailed information on the USMLE Steps, visit the USMLE website at <http://www.usmle.org>.

### The USMLE and the IMG

The USMLE is a series of standardized exams that give IMGs and US medical graduates a level playing field. The passing marks for IMGs for Step 1 and Step 2 CK are determined by a statistical distribution that is based on the scores of US medical school students. For example, to pass Step 1, you will probably have to score higher than the bottom 8–10% of US and Canadian graduates.

Under USMLE program rules, a maximum of four attempts will be permitted to pass any USMLE Step or component exam. There is a limit of three attempts within a 12-month period for all of the USMLE Steps.

### Timing of the USMLE

**For an IMG, the timing of a complete application is critical.** It is extremely important that you send in your application early if you are to obtain the maximum number of interviews. Complete all exam requirements by August of the year in which you wish to apply. Check the ECFMG website

▶ IMGs have a maximum of six attempts to pass any USMLE Step, and must pass the USMLE Steps required for ECFMG certification within a seven-year period.

for deadlines to take and pass the various Step exams to be eligible for the NRMP Match.

IMG applicants must pass the USMLE Steps required for ECFMG certification (Step 1 and Step 2 CK) within a seven-year period. Most state medical board jurisdictions impose a seven-year limit for completion of the three-step USMLE examination sequence with a longer limit for MD/PhD candidates. State-specific requirements can be found at [www.fsmb.org/step-3/state-licensure/](http://www.fsmb.org/step-3/state-licensure/).

You may take Step 1 and Step 2 CK in any order. Now that Step 1 has moved to pass/fail grading, a stronger argument can be made for taking the Step 1 exam first given the substantial overlap between Step 1 and Step 2 CK topics in areas such as pharmacology, pathophysiology, and biostatistics. You might therefore consider taking the Step 1 and Step 2 CK exams close together to take advantage of this overlap in your test preparation.

### USMLE Step 1 and the IMG

**Significance of the Test.** Step 1 is one of the two exams required for the ECFMG certification. It is one of the few objective tools available with which to compare IMGs with US graduates.

**Signing Up.** We advise that you read the FAQ section on the ECFMG website carefully. Most of the services you will need to use involve either IWA or OASIS. If you have not yet completed medical school, follow these steps to sign up for Step 1:

- Apply and pay for an ECFMG/USMLE ID number on the ECFMG website.
- After receiving an email with your ID number, log in to IWA/OASIS, enter your details, and complete the “On-Line part of your USMLE Step 1 application.” Choose your test center location and 3-month eligibility period. Additional fees apply if you need to change your eligibility period.
- Pay the Step 1 fee plus any international test surcharges that may apply.
- Access and complete Form 186 (Certification of Identity Form) from IWA as part of the Application for ECFMG Certification.
- Follow the instructions on the form to notarize Form 186 using the online service NotaryCam.com. The fee for this service is included in the ECFMG application fee.
- Once notarized by NotaryCam.com and submitted, Form 186 will remain valid indefinitely. A valid, previously completed Form 186 will remain valid for five years from the date it was accepted.
- After receiving a confirmation email from the ECFMG, you may book an exam date and location on [www.prometric.com](http://www.prometric.com).

**Eligibility Period.** A three-month period of your choice.

**Fee.** The fee for Step 1 is \$965 plus an international test delivery surcharge (if you choose a testing region other than the United States or Canada).

**Statistics.** In 2019–2020, 82% of IMG examinees passed Step 1 on their first attempt, compared with 97% of MD degree examinees from the United States and Canada.

**Tips.** Although few if any students feel totally prepared to take Step 1, IMGs in particular often require serious study and preparation in order to comfortably pass this exam.

**Commercial Review Courses.** Do commercial review courses help increase your chance of passing? Although such courses can be expensive, for some students these programs can provide a more structured learning environment with professional support. However, review courses consume a significant chunk of time away from independent study. Historically, many IMGs participated in review courses as they typically needed higher scores to compete effectively with US and Canadian candidates for residency positions. (For more information on review courses, see Section IV in the book.)

### USMLE Step 2 CK and the IMG

**What Is the Step 2 CK?** It is a computerized test of the clinical sciences consisting of up to 318 multiple-choice questions divided into eight blocks. Each block contains a maximum of 40 questions and needs to be completed within 60 minutes. It can be taken at Prometric centers in the United States and several other countries.

**Content.** The Step 2 CK includes test items in the following content areas:

- Internal medicine
- Obstetrics and gynecology
- Pediatrics
- Preventive medicine
- Psychiatry
- Surgery
- Other areas relevant to the provision of care under supervision

**Significance of the Test.** The Step 2 CK is required for the ECFMG certificate. It reflects the level of clinical knowledge of the applicant. It tests clinical subjects, primarily internal medicine. Other areas tested are orthopedics, ENT, ophthalmology, safety science, epidemiology, professionalism, and ethics.

**Eligibility.** Students and graduates from medical schools that are listed in WDOMS and meet the ECFMG eligibility requirement to take the Step 2 CK. Students must have completed at least two years of medical school. This means that students must have completed the basic medical science component of the medical school curriculum by the beginning of the eligibility period selected.

► *The areas tested on the Step 2 CK relate to the clerkships provided at US medical schools.*

**Eligibility Period.** A three-month period of your choice.

**Fee.** The fee for the Step 2 CK is \$965 plus an international test delivery surcharge (if you choose a testing region other than the United States or Canada).

**Statistics.** In 2018–2019, 87% of ECFMG candidates passed the Step 2 CK on their first attempt, compared with 98% of MD degree examinees from US and Canadian schools.

**Tips.** If planning to complete an observership or other US clinical experience, it may be helpful to take Step 2 CK after the rotation. Most questions on the Step 2 CK exam give clinical scenarios, and cultural and geographic considerations may play a greater role in answer choices when compared to Step 1 questions. For example, if your medical education gave you ample exposure to malaria, brucellosis, and malnutrition but little to alcohol withdrawal, child abuse, and cholesterol screening, you must work to familiarize yourself with topics that are more heavily emphasized in US medicine. You must also have a basic understanding of the legal and social aspects of US medicine, because you will be asked questions about communicating with and advising patients.

► *Be familiar with topics that are heavily emphasized in US medicine, such as cholesterol screening.*

### USMLE Step 3 and the IMG

**What Is the USMLE Step 3?** It is a two-day computerized test in clinical medicine consisting of 412 multiple-choice questions and 13 computer-based case simulations (CCS). The exam aims to test your knowledge and its application to patient care and clinical decision making (ie, this exam tests if you can safely practice medicine independently and without supervision). Please go to the USMLE website to learn more about recent changes to the exam.

**Significance of the Test.** Taking Step 3 before residency is critical for IMGs seeking an H1B visa and is also a bonus that can be added to the residency application. Step 3 is also required to obtain a full medical license in the United States and can be taken during residency for this purpose.

► *Complete the Step 3 exam before you apply for an H1B visa.*

**Fee.** The fee for Step 3 is \$895.

**Eligibility.** Examinees are no longer required to apply to the Step 3 exam under the eligibility requirements of a specific medical licensing authority. Those wishing to sit for the Step 3 exam, independent of the place of residence, must meet the following requirements:

- Have completed an MD or DO degree from an LCME- or AOA-accredited US or Canadian medical school, or from a medical school outside the US and Canada listed in the World Directory of Medical Schools.
- Have taken and passed the Step 1 and Step 2 CK exams.
- If an IMG, be certified by the ECFMG.

The Step 3 exam is not available outside the United States. Applications can be found online at [www.fsmb.org](http://www.fsmb.org) and must be submitted to the FSMB.

**Statistics.** In 2019, 92% of IMG candidates passed the Step 3 on their first attempt, compared with 98% of MD degree examinees from US and Canadian schools.

### Residencies and the IMG

In the Match, the number of US-citizen IMG applications has grown over the past few years, while the percentage accepted has remained constant (see Table 1). More information about residency programs can be obtained at [www.ama-assn.org](http://www.ama-assn.org).

### The Match and the IMG

Given the growing number of IMG candidates with strong applications, you should bear in mind that good USMLE scores are not the only way to gain a competitive edge. However, USMLE Step 1 scores (when available) and Step 2 CK scores (probably of increasing significance) will continue to be used as the initial screening mechanism when candidates are being considered for interviews.

Based on accumulated IMG Match experiences over recent years, here are a few pointers to help IMGs maximize their chances for a residency interview:

- **Apply early.** Programs offer a limited number of interviews and often select candidates on a first-come, first-served basis. Because of this, you should aim to complete the entire process of applying for the ERAS token, registering with the Association of American Medical Colleges (AAMC), mailing necessary documents to ERAS, and completing the ERAS application by mid-September (see Figure 1). Community programs usually send out interview offers earlier than do university and university-affiliated programs.

TABLE 1. IMGs in the Match.

Applicants	2016	2017	2018	2019	2020
US-citizen IMGs	5,323	5,069	5,075	5,080	5,167
% US-citizen IMGs accepted	53.9	54.8	57.1	59	61
Non-US-citizen IMGs	7,460	7,284	7,067	6,869	6,907
% non-US-citizen IMGs accepted	50.5	52.4	56.1	58.6	61.1
US seniors (non-IMGs)	18,187	18,539	18,818	18,925	19,326
% US seniors accepted	93.8	94.3	94.3	93.9	93.7
DO seniors		3,335	4,275	5,478	6,581
% DO seniors accepted		85	84.9	88	90.7

Source: [www.nrmp.org](http://www.nrmp.org).

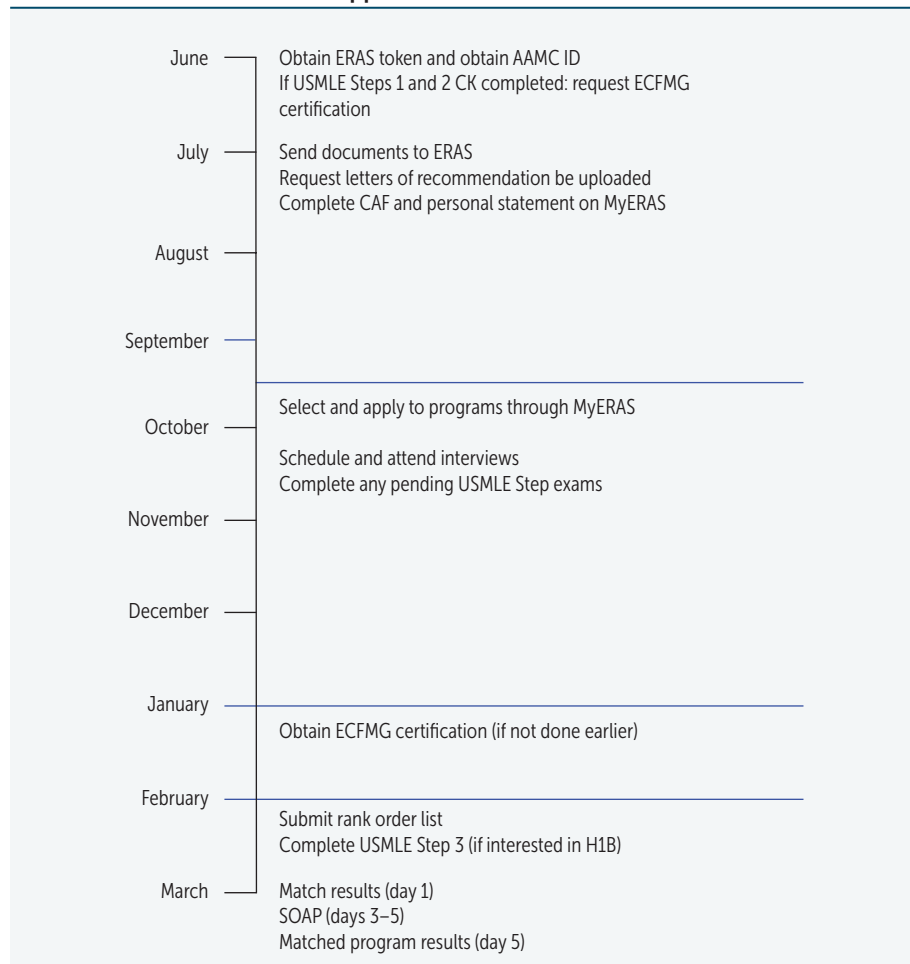


Applicants should check the ECFMG website for COVID-related issues that may impact the application process and timeline.

- US clinical experience helps.** Externships and observerships in a US hospital setting have emerged as an important credential on an IMG application. Externships are like short-term medical school internships and offer hands-on clinical experience. Observerships, also called “shadowing,” involve following a physician and observing how he or she manages patients. Some programs require students to have participated in an externship or observership before applying. It is best to gain such an experience before or at the time you apply to various programs so that you can mention it on your ERAS application. If such an experience or opportunity comes up after you apply, be sure to inform the programs accordingly.
- Clinical research helps.** University programs are attracted to candidates who show a strong interest in clinical research and academics. They may even relax their application criteria for individuals with unique backgrounds and strong research experience. Publications in well-known journals are an added bonus.

► *All US hospitals allow externship only when the applicant is actively enrolled in a medical school, so plan ahead.*

**FIGURE 1. IMG Timeline for Application.**



► *A good score on the Step 3 may help offset poorer scores on the Step 1 or 2 CK exams.*

- **US letters of recommendation help.** Letters of recommendation from clinicians practicing in the United States carry more weight than recommendations from home countries.
- **Step up the Step 3.** If H1B visa sponsorship is desired, aim to have Step 3 results by January of the Match year. In addition to the visa advantage you will gain, an early and good Step 3 score may benefit IMGs who have been away from clinical medicine for a while as well as those who have low scores on Step 1 and the Step 2 CK. Note that the Step 3 can be taken only after medical school graduation.
- **Verify medical credentials in a timely manner.** Do not overlook the medical school credential verification process. The ECFMG certificate arrives only after credentials have been verified and after you have passed Step 1 and Step 2 CK, so you should keep track of the process and check their application status online using IWA/OASIS.
- **Don't count on a pre-Match.** Programs participating in NRMP Match can no longer offer a pre-Match.

### What if You Do Not Match?

For applicants who do not Match into a residency program, there's SOAP (Supplemental Offer and Acceptance Program). Under SOAP, unmatched applicants will have access to the list of unfilled programs at noon Eastern time on the Monday of Match week. The unfilled programs electing to participate in SOAP will offer positions to unmatched applicants through the Registration, Ranking, and Results (R3) system. A series of "rounds" will begin at noon Eastern time on Wednesday of Match week until 5:00 PM Eastern time on Friday of Match week. Detailed information about SOAP can be found at the NRMP website at <http://www.nrmp.org>.

### Resources for the IMG

- **Educational Commission for Foreign Medical Graduates (ECFMG)**  
3624 Market Street  
Philadelphia, PA 19104-2685  
(215) 386-5900  
Fax: (215) 386-9196  
Email: [info@ecfm.org](mailto:info@ecfm.org)  
[www.ecfm.org](http://www.ecfm.org)

The ECFMG telephone number is answered only between 9:00 AM–5:00 PM Monday through Friday EST. The ECFMG often takes a long time to answer the phone, which is frequently busy at peak times of the year, and then gives you a long voice-mail message—so it is better to email early than to rely on a last-minute phone call. When contacting the ECFMG by email, include your USMLE/ECFMG Identification Number and use the email address that you registered with the ECFMG. Do not contact the NBME, as all IMG exam matters are conducted by

the ECFMG. The ECFMG also publishes an information booklet on ECFMG certification and the USMLE program, which gives details on the dates and locations of forthcoming Step tests for IMGs together with application forms. The *Information Booklet* is available to view and download on the ECFMG's website at [www.ecfm.org](http://www.ecfm.org), where they also have a complete list of fees for certification posted (see Table 2).

■ **Federation of State Medical Boards (FSMB)**

400 Fuller Wisser Road, Suite 300

Eules, TX 76039-3856

(817) 868-4041

Email: [usmle@fsmb.org](mailto:usmle@fsmb.org)

[www.fsmb.org](http://www.fsmb.org)

The FSMB has a number of publications available, including free policy documents. All of these documents are available to view and download for free on the FSMB's website at [www.fsmb.org](http://www.fsmb.org). For Step 3 inquiries, the telephone number is (817) 868-4041.

The AMA has dedicated a portion of its website to information on IMG demographics, residencies, immigration, and the like. This information can be found at [www.ama-assn.org](http://www.ama-assn.org).

**TABLE 2. Estimated Costs for IMGs (as of 2021).**

<b>Exams and Services</b>	<b>Fee(s)</b>
USMLE Step 1	\$975 + international surcharge (\$180 in all countries outside of the US and Canada)
USMLE Step 2 CK	\$975 + international surcharge (\$200 in all countries outside of the US and Canada)
USMLE Step 3	\$895
ERAS	\$155 registration fee (ECFMG token fee) \$80 USMLE transcript assessment \$99 for programs 1–10 \$17 each for programs 11–20 \$21 each for programs 21–30 \$26 each for programs 31+
Length of rank order list fee	\$50 for every 50 programs ranked above 100 (eg, extra \$50 for 100–150 ranks)
NRMP	\$85 registration fee (for ranking 20 programs) \$30 per additional program over 20, up to 300 \$45 per partner (couples match only) \$50 late registration fee (sign up before January 31 to avoid paying this fee)
J-1 visa application fee	\$160 visa application fee \$350 annual ECFMG application fee \$220 payable to Homeland Security (SEVIS fee) only if seeking a change in J-1 category

**► FIRST AID FOR THE OSTEOPATHIC MEDICAL STUDENT****What Is the COMLEX-USA Level 1?**

The National Board of Osteopathic Medical Examiners (NBOME) administers the Comprehensive Osteopathic Medical Licensing Examination, or COMLEX-USA. Like the USMLE, the COMLEX-USA is administered over three levels.

The COMLEX-USA series assesses osteopathic medical knowledge and clinical skills using clinical presentations and physician tasks. A description of the COMLEX-USA Written Examination Blueprints for each level, which outline the various clinical presentations and physician tasks that examinees will encounter, is given on the NBOME website. Another stated goal of the COMLEX-USA Level 1 is to create a more primary care-oriented exam that integrates osteopathic principles into clinical situations.

To be eligible to take the COMLEX-USA Level 1, you must be on track to satisfactorily complete your first two years in an AOA-accredited medical school. The office of the dean at each school informs the NBOME that the student will complete the first two years of medical school and is in good standing. At this point, the NBOME sends out an email with detailed instructions on how to register for the exam.

For all three levels of the COMLEX-USA, raw scores are converted to a percentile score and a score ranging from 5 to 800. For Levels 1 and 2, a score of 400 is required to pass; for Level 3, a score of 350 is needed. COMLEX-USA scores are posted at the NBOME website 4–6 weeks after the test and usually mailed within 8 weeks after the test. The mean score is always 500.

If you pass a COMLEX-USA examination, you are not allowed to retake it to improve your grade. Currently, if you fail, there is no specific limit to the number of times you can retake it in order to pass. However, a student may not take the exam more than four times in one year. Levels 2 and 3 exams must be passed in sequential order within seven years of passing Level 1.

Note that candidates taking COMLEX-USA examinations will be limited to a total of six attempts for each examination.

**What Is the Structure of the COMLEX-USA Level 1?**

The COMLEX-USA Level 1 is a computer-based examination consisting of 400 questions over an eight-hour period in a single day (nine hours counting breaks). Most of the questions are in one-best-answer format, but a small number are matching-type questions. Some one-best-answer questions are bundled together around a common question stem that usually takes the form of a clinical scenario. Every section of the COMLEX-USA Level 1 ends with either matching questions, multiple questions around a single stem, or both. New question formats may gradually be introduced, but candidates will be notified if this occurs. Multimedia questions are also included on the exam.

Questions are grouped into eight subsections of 50 questions each in a manner similar to that of the USMLE. The individual subsections are not timed, but the exam is divided into two blocks consisting of four subsections. Each subsection consists of 200 questions to be completed within four hours. Reviewing and changing answers may be done only in the current subsection. A “review page” is presented for each subsection in order to advise test takers of questions completed, questions marked for further review, and incomplete questions for which no answer has been given.

Breaks are even more structured with COMLEX-USA than they are with the USMLE. Students are allowed to take an optional 10-minute break at the end of the second and sixth subsections. After subsection 4, students are given a 40-minute lunch break. These are the only times a student is permitted a break. Any unused break time will not be added to the time allotted for taking the examination. More information about the computer-based COMLEX-USA examinations can be obtained from [www.nbome.org](http://www.nbome.org).

### What Is the Difference Between the USMLE and the COMLEX-USA?

According to the NBOME, the COMLEX-USA Level 1 focuses broadly on the following categories, with osteopathic principles and practices integrated into each section:

- Health promotion and disease prevention
- The history and physical
- Diagnostic technologies
- Management
- Scientific understanding of mechanisms
- Health care delivery

Although the COMLEX-USA and the USMLE are similar in scope, content, and emphasis, some differences are worth noting. For example, the interface is different; you cannot search for lab values. Instead, lab values and reference ranges (where appropriate) are included directly in the clinical vignette or test question. Fewer details are given about a patient’s condition, so a savvy student needs to know how to differentiate between similar pathologies. Also, age, gender, and race are key factors for diagnosis on the COMLEX-USA. Images or videos are embedded in the question stem and the examinee has to click an attachment button to see the image. If you don’t read the question carefully, the attachment buttons are very easy to miss. A standard calculator feature is embedded in the examination interface.

COMLEX-USA Level 1 tests osteopathic principles in addition to basic science materials but does not emphasize lab techniques. Although both exams often require that you apply and integrate knowledge over several areas of basic science to answer a given question, many students who took both tests reported that the questions differed somewhat in style. Students reported, for example, that USMLE questions generally required that the test taker reason and draw from the information given (often a two-step

► *The test interface for the COMLEX-USA Level 1 is not the same as the USMLE Step 1 interface.*

process), whereas those on the COMLEX-USA exam tended to be more straightforward and that multiple different questions are asked pertaining to one question stem.

COMLEX-USA test takers can expect to have only a few questions on biochemistry, molecular biology, or lab technique. On the other hand, microbiology is very heavily tested by clinical presentation and by lab identification. The COMLEX-USA exam also focuses more on disease management, specific legal principles (eg, Tarasoff case and the Emergency Treatment Act) and more detailed ethical principles (eg, *res ipsa loquitur*) than the USMLE Step 1. Another main difference is that the COMLEX-USA exam stresses osteopathic manipulative medicine. Therefore, question banks specific to the USMLE will not be adequate, and supplementation with a question bank specific to the COMLEX-USA is highly recommended. The most commonly used are COMBANK or COMQUEST.

Students also commented that the COMLEX-USA utilized “buzzwords,” although limited in their use (eg, “rose spots” in typhoid fever), whereas the USMLE avoided buzzwords in favor of descriptions of clinical findings or symptoms (eg, rose-colored papules on the abdomen rather than rose spots). Finally, USMLE appeared to have more photographs than did the COMLEX-USA. In general, the overall impression was that the USMLE was a more “thought-provoking” exam, while the COMLEX-USA was more of a “knowledge-based” exam.

### Who Should Take Both the USMLE and the COMLEX-USA?

Aside from facing the COMLEX-USA Level 1, you must decide if you will also take the USMLE Step 1. We recommend that you consider taking both the USMLE and the COMLEX-USA under the following circumstances:

- **If you are applying to allopathic residencies.** Although there is growing acceptance of COMLEX-USA certification on the part of allopathic residencies, some allopathic programs prefer or even require passage of the USMLE Step 1. These include many academic programs, programs in competitive specialties (eg, orthopedics, ophthalmology, or dermatology), and programs in competitive geographic areas (eg, Vermont, Utah, and California). Fourth-year osteopathic medical students who have already matched may be a good source of information about which programs and specialties look for USMLE scores. It is also a good idea to contact program directors at the institutions you are interested in to ask about their policy regarding the COMLEX-USA versus the USMLE.
- **If you are unsure about your postgraduate training plans.** Successful passage of both the COMLEX-USA Level 1 and the USMLE Step 1 is certain to provide you with the greatest possible range of options when you are applying for internship and residency training.

In addition, the COMLEX-USA Level 1 has in recent years placed increasing emphasis on questions related to primary care medicine and prevention. Having a strong background in family or primary care medicine can help test takers when they face questions on prevention.

► *If you're not sure whether you need to take either the COMLEX-USA Level 1 or the USMLE Step 1, consider taking both to keep your Match options open.*

### How Do I Prepare for the COMLEX-USA Level 1?

Student experience suggests that you should start studying for the COMLEX-USA four to six months before the test is given, as an early start will allow you to spend up to a month on each subject. The recommendations made in Section I regarding study and testing methods, strategies, and resources, as well as the books suggested in Section IV for the USMLE Step 1, hold true for the COMLEX-USA as well.

Another important source of information is in the *Examination Guidelines and Sample Exam*, a booklet that discusses the breakdown of each subject while also providing sample questions and corresponding answers. Many students, however, felt that this breakdown provided only a general guideline and was not representative of the level of difficulty of the actual COMLEX-USA. The sample questions did not provide examples of clinical vignettes, which made up approximately 25% of the exam. You will receive this publication with registration materials for the COMLEX-USA Level 1, but you can also receive a copy and additional information by writing:

#### NBOME

8765 W. Higgins Road, Suite 200

Chicago, IL 60631-4174

(773) 714-0622

[www.nbome.org](http://www.nbome.org)

The NBOME developed the Comprehensive Osteopathic Medical Self-Assessment Examination (COMSAE) series to fill the need for self-assessment on the part of osteopathic medical students. Many students take the COMSAE exam before the COMLEX-USA in addition to using test-bank questions and board review books. Students can purchase a copy of this exam at [www.nbome.org/comsae.asp](http://www.nbome.org/comsae.asp).

In recent years, students have reported an emphasis in certain areas. For example:

- There was an increased emphasis on upper limb anatomy/brachial plexus.
- Specific topics were repeatedly tested on the exam. These included cardiovascular physiology and pathology, acid-base physiology, diabetes, benign prostatic hyperplasia, sexually transmitted diseases, measles, and rubella. Thyroid and adrenal function, neurology (head injury), specific drug treatments for bacterial infection, migraines/cluster headaches, and drug mechanisms also received heavy emphasis.
- Behavioral science questions were based on psychiatry.
- High-yield osteopathic manipulative technique (OMT) topics included an emphasis on the sympathetic and parasympathetic innervations of viscera and nerve roots, rib mechanics/diagnosis, and basic craniosacral theory. Students who spend time reviewing basic anatomy, studying nerve and dermatome innervations, and understanding how to perform basic OMT techniques (eg, muscle energy or counterstrain) can improve their scores.

▶ You must know the Chapman reflex points and the obscure names of physical exam signs.

▶ COMLEX is heavy on "bugs and drugs."

The COMLEX-USA Level 1 also includes multimedia-based questions. Such questions test the student's ability to perform a good physical exam and to elicit various physical diagnostic signs (eg, Murphy sign).

### ► FIRST AID FOR THE PODIATRIC MEDICAL STUDENT

The National Board of Podiatric Medical Examiners (NBPME) offers the American Podiatric Medical Licensing Examinations (APMLE), which are designed to assess whether a candidate possesses the knowledge required to practice as an entry-level podiatric surgeon. The APMLE is used as part of the licensing process governing the practice of podiatric medicine and surgery. The APMLE is recognized by all 50 states and the District of Columbia, the US Army, the US Navy, and the Canadian provinces of Alberta, British Columbia, and Ontario. Individual states use the examination scores differently; therefore, doctor of podiatric medicine (DPM) candidates should refer to the NBPME 2022 Part I, II, and III Candidate Bulletins.

The APMLE Part I is generally taken after the completion of the second year of podiatric medical education. Unlike the USMLE Step 1, there is no behavioral science section, nor is biomechanics tested. The exam samples seven basic science disciplines: general anatomy (13%); lower extremity anatomy (25%); biochemistry (10%); physiology (13%); microbiology and immunology (13%); pathology (13%); and pharmacology (13%). A detailed outline of topics and subtopics covered on the exam can be found in the *2022 Part I Candidate Bulletin*, available at [www.apmle.com](http://www.apmle.com).

#### ► Areas tested on the NBPME Part I:

- General anatomy
- Lower extremity anatomy
- Biochemistry
- Physiology
- Medical microbiology & immunology
- Pathology
- Pharmacology

### Your APMLE Appointment

Applicants have to register for the exam online at [www.prometric.com/NBPME](http://www.prometric.com/NBPME). Once registration is completed, you will receive an Authorization to Test (ATT) email notification that allows you to schedule your exam online. This should be done promptly to secure the testing location and exam date of your choice. The exam will be offered at an independent Prometric testing facility. Test centers within a 50-mile radius of a podiatric medicine school specifically reserve a number of seats on each APMLE Part I exam date. You may take the exam at any Prometric site regardless of which school you attend. Specific instructions about exam dates and registration deadlines can be found in the *Candidate Information Bulletin*.

### Exam Format

The APMLE Part I is a written exam consisting of 205 questions. The test consists exclusively of one-best-answer multiple choice questions with four options per question. A review screen showing all answered, unanswered, and marked questions will be available at the end. Students are encouraged



to mark questions and return to these for review at the end of the exam if time allows. Examinees have four hours in which to complete the exam and are given scratch paper that must be turned in at the end of the exam. Some questions on the exam will be “trial questions.” These questions are evaluated as future board questions but are not counted in your score.

### Interpreting Your Score

Exam results are emailed to examinees approximately four weeks after the exam date, and are also available online via the Prometric dashboard. APMLE scores are reported as pass/fail, with a scaled score of at least 75 needed to pass. Historically, 85% of first-time test takers pass the APMLE Part I. Failing candidates receive a report with a score between 55 and 74 in addition to diagnostic messages intended to help identify strengths or weaknesses in specific content areas. If you fail the APMLE Part I, you must retake the entire examination at a later date. There is no limit to the number of times you can retake the exam.

### Preparation for the APMLE Part I

Begin studying for the APMLE Part I at least three months prior to the test date. The suggestions made in Section I regarding study and testing methods for the USMLE Step 1 can be applied to the APMLE as well. This book should, however, be used as a supplement and not as the sole source of information. Neither you nor your school or future residency will ever see your actual passing numerical score. Competing with colleagues should not be an issue, and study groups are beneficial to many.

A study method that helps many students is to copy the outline of the material to be tested from the *Candidate Information Bulletin*. Check off each topic during your study, because doing so will ensure that you have engaged each topic. If you are pressed for time, prioritize subjects on the basis of their weight on the exam. A full 25% of the APMLE Part I focuses on lower extremity anatomy. In this area, students should rely on the notes and material that they received from their class. Remember, lower extremity anatomy is the podiatric physician’s specialty—so everything about it is important. Do not forget to study osteology. Keep your old tests and look through old lower extremity class exams, since each of the podiatric colleges submits questions from its faculty. This strategy will give you an understanding of the types of questions that may be asked. On the APMLE Part I, you will see some of the same classic lower extremity anatomy questions you were tested on in school.

► *Know the anatomy of the lower extremity!*

The APMLE, like the USMLE, requires that you apply and integrate knowledge over several areas of basic science in order to answer exam questions. Students report that many questions emphasize clinical presentations; however, the facts in this book are very useful in helping students recall the various diseases and organisms. DPM candidates should expand on the high-yield pharmacology section and study antifungal

drugs and treatments for *Pseudomonas*, methicillin-resistant *S aureus*, candidiasis, and erythrasma. The high-yield section focusing on pathology is very useful; however, additional emphasis on diabetes mellitus and all its secondary manifestations, particularly peripheral neuropathy, should not be overlooked. Students should also focus on renal physiology and drug elimination, the biochemistry of gout, and neurophysiology, all of which have been noted to be important topics on the APMLE Part I exam.

A sample set of questions is found on the APMLE website [www.apmle.com](http://www.apmle.com). These samples are somewhat similar in difficulty to actual board questions. If you have any questions regarding registration, fees, test centers, authorization forms, or score reports, please contact your college registrar or:

**Prometric**

877-302-8952

Email: [nbpmeinquiry@prometric.com](mailto:nbpmeinquiry@prometric.com)

[www.prometric.com](http://www.prometric.com)

### ▶ FIRST AID FOR THE STUDENT REQUIRING TEST ACCOMMODATIONS

The USMLE provides accommodations for students with documented disabilities. The basis for such accommodations is the Americans with Disabilities Act (ADA) of 1990. The ADA defines a disability as “a significant limitation in one or more major life activities.” This includes both “observable/physical” disabilities (eg, blindness, hearing loss, narcolepsy) and “hidden/mental disabilities” (eg, attention-deficit hyperactivity disorder, chronic fatigue syndrome, learning disabilities).

To provide appropriate support, the administrators of the USMLE must be informed of both the nature and the severity of an examinee’s disability. Such documentation is required for an examinee to receive testing accommodations. Accommodations include extra time on tests, low-stimulation environments, extra or extended breaks, and zoom text.

▶ *US students seeking ADA-compliant accommodations must contact the NBME directly; IMGs, contact the ECFMG.*

#### **Who Can Apply for Accommodations?**

Students or graduates of a school in the United States or Canada that is accredited by the Liaison Committee on Medical Education (LCME) or the AOA may apply for test accommodations directly from the NBME. Requests are granted only if they meet the ADA definition of a disability. If you are a disabled student or a disabled graduate of a foreign medical school, you must contact the ECFMG (see the following page).

#### **Who Is Not Eligible for Accommodations?**

Individuals who do not meet the ADA definition of disabled are not eligible for test accommodations. Difficulties not eligible for test accommodations

include test anxiety, slow reading without an identified underlying cognitive deficit, English as a second language, and learning difficulties that have not been diagnosed as a medically recognized disability.

### Understanding the Need for Documentation

Although most learning-disabled medical students are all too familiar with the often exhausting process of providing documentation of their disability, you should realize that **applying for USMLE accommodation is different from these previous experiences**. This is because the NBME determines whether an individual is disabled solely on the basis of the guidelines set by the ADA. **Previous accommodation does not in itself justify provision of an accommodation for the USMLE**, so be sure to review the NBME guidelines carefully.

### Getting the Information

The first step in applying for USMLE special accommodations is to contact the NBME and obtain a guidelines and questionnaire booklet. For the Step 1 and Step 2 CK exams, this can be obtained by calling or writing to:

#### Disability Services

National Board of Medical Examiners  
3750 Market Street  
Philadelphia, PA 19104-3102  
(215) 590-9509  
Email: [disabilityservices@nbme.org](mailto:disabilityservices@nbme.org)  
[www.usmle.org/test-accommodations](http://www.usmle.org/test-accommodations)

Internet access to this information is also available at [www.nbme.org](http://www.nbme.org). This information is also relevant for IMGs, since the information is the same as that sent by the ECFMG.

Foreign graduates should contact the ECFMG to obtain information on special accommodations by calling or writing to:

#### ECFMG

3624 Market Street  
Philadelphia, PA 19104-2685  
(215) 386-5900  
[www.ecfm.org](http://www.ecfm.org)

When you get this information, take some time to read it carefully. The guidelines are clear and explicit about what you need to do to obtain accommodations.